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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,436	08/01/2003	Michael F. Thomashow	21835-00004	3828

27144 7590 08/18/2005

FOSTER, SWIFT, COLLINS & SMITH, P.C.  
313 SOUTH WASHINGTON SQUARE  
LANSING, MI 48933

EXAMINER
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KUMAR, VINOD

ART UNIT	PAPER NUMBER
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1638

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/632,436

**Applicant(s)**

THOMASHOW ET AL.

**Examiner**

Vinod Kumar

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on August 1, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-19 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-8, 10, 12-15, 16 and 18-19 drawn to a plant material transformed via *Agrobacterium tumefaciens* carrying a chimeric plant-expressible gene, which comprises a promoter, DNA sequences SEQ. ID. No. 1 or SEQ. ID. No. 2 encoding cold and dehydration regulated transcription factors and a non-translated 3' end encoding signal sequence for polyadenylation of mRNA, as classified in class 800, subclass 294, for example.
- II. Claims 9,11 and 17, drawn to a method for regulating cold and dehydration regulatory genes in a plant by introducing and expressing at least a copy of DNA binding protein encoded by said regulatory genes, as classified in class 800, subclass 289, for example.

The inventions I and II are distinct from each other because of the following reasons:

The method and plant of group II does not require SEQ ID NO: 1 or SEQ ID NO: 2. Further, methods other than *Agrobacterium* mediated transformation can be used to introduce cold and dehydration regulatory genes in the plants of Group II. These could be direct DNA transfer methods like electroporation, particle gun bombardment etc.

Furthermore, searching the inventions of group I and II together would impose a serious burden. In the instant case, the search for different methods of introducing cold and dehydration genes and producing cold and dehydration tolerant transgenic plants are not coextensive. There may be patent and non-patent literature information pertaining to different methods of introducing foreign DNA into plant cells. Similarly there may be large number of DNA sequences that may function as cold and dehydration tolerant genes and can be used with any of the methods for introducing foreign DNA into plant cells. Thus search requires an extensive analysis of technical information divergent between groups I and II.

Because these inventions are distinct for the reasons given above, have acquired a separate status in the art as shown by the literature search required for group I is not required for Group II, restriction for examination purposes as indicated is proper.

Applicants are reminded that different nucleotide sequences and amino acid sequences are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to normally constitute independent and distinct inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such nucleotide sequence and each amino acid sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq.

In addition, under 35 USC 121, **Applicants are also required to elect one** nucleic acid sequence and one encoded amino acid sequence to be examined in

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conjunction with the elected group of claims. For Group I, <sup>select</sup> one of SEQ ID NOs: 1-2.

This requirement is not to be construed as a requirement for an election of species, since each nucleotide sequence is not a member of single genus of invention, but constitutes an independent and patentably distinct invention.

A telephone call was made to Mr. John Nader on August 3, 2005 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinod Kumar whose telephone number is (571) 272-4445. The examiner can normally be reached on 8.30 a.m. to 5.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William (Gary) G. Jones can be reached on (571) 272-0745. The fax phone

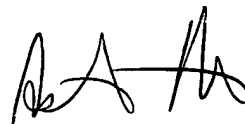
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number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vinod Kumar, Ph.D.  
August 15, 2005



ASHWIN D. MENTA, PH.D.  
PRIMARY EXAMINER